

Remarks

Claims 1-8 and 11-16 are now pending in the application. Applicants note that the Office Action indicated that only claims 1-10 were originally pending. However, an Amendment Under PCT Article 19(1) was filed in International Application No. PCT/US99/18790 adding claims 11 and 12. A copy of the Article 19(1) Amendment, which is dated October 20, 2000, is attached with this response. Applicants kindly request consideration of claims 11 and 12.

The Amendments Are Supported By The Original Disclosure

Claims 9 and 10 have been cancelled as being directed to non-elected subject matter. Applicants reserve the right to file one or more continuing applications.

New claims 13-16, which are directed to elected subject matter, are supported by the original disclosure; see, for example, specification pages 102-436 and original claim 9. New claims 13 -16 recite preferred embodiments of compounds within formula I (where Het is furan; X is C=O; and R₁ and R₂ are both hydrogen). Claims 1-6 have been amended to be dependent on new claim 13. Support for this amendment can be found, for example, in original claims 1-6.

Election Under 37 C.F.R. §1.499

The Examiner required restriction between: (I) claims 1-8; and (II) claims 9-10. Applicants hereby elect Group (I). This election is without traverse insofar as the groups of claims represent distinct inventive concepts.

Conclusion

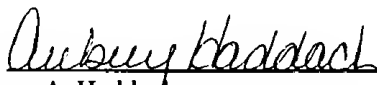
In view of the foregoing, Applicants respectfully request prompt examination on the merits of the elected claims.

If any fees not submitted herewith are required for the filing of this response, including any fee for an extension of time for which Applicants hereby petition, please charge all such necessary fees to Applicants' Deposit Account No. 500329.

Respectfully Submitted,

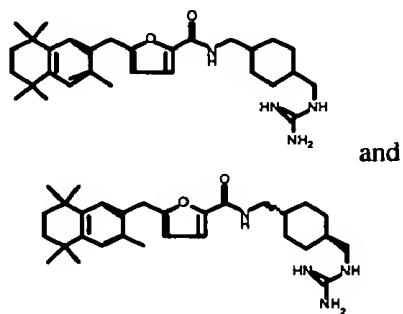
Date: June 6, 2002

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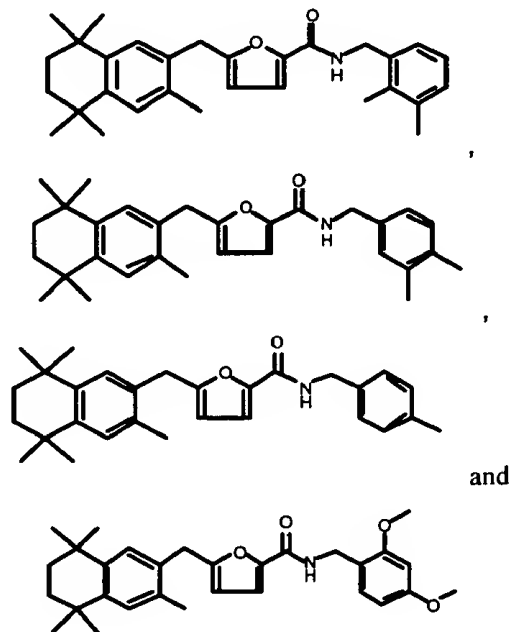
MARKED UP VERSION SHOWING CHANGES MADE TO CLAIMS:

1. (Amended) A compound according to claim 13, having a formula selected from the group consisting of:



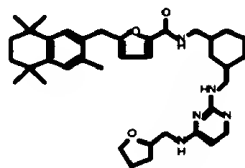
or a pharmaceutically acceptable salt, multimer, prodrug, or active metabolite thereof.

2. (Amended) A compound according to claim 13, having a formula selected from the group consisting of:



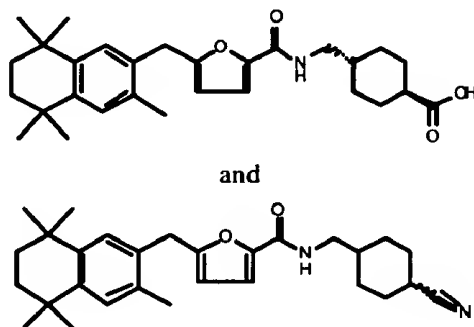
or a pharmaceutically acceptable salt, multimer, prodrug, or active metabolite thereof.

3. (Amended) A compound according to claim 13, having the formula:



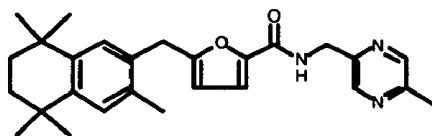
or a pharmaceutically acceptable salt, multimer, prodrug, or active metabolite thereof.

4. (Amended) A compound according to claim 13, having a formula selected from the group consisting of:



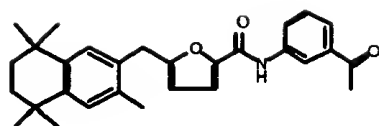
or a pharmaceutically acceptable salt, multimer, prodrug, or active metabolite thereof.

5. (Amended) A compound according to claim 13, having the formula:

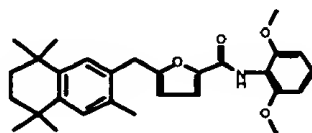


or a pharmaceutically acceptable salt, multimer, prodrug, or active metabolite thereof.

6. (Amended) A compound according to claim 13, having a formula selected from the group consisting of:



and

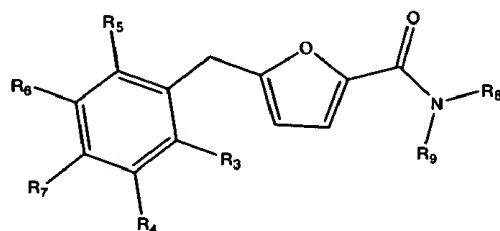


or a pharmaceutically acceptable salt, multimer, prodrug, or active metabolite thereof.

9. (Deleted)

10. (Deleted)

13. (New Claim) A compound represented by the formula



wherein:

R_3 is hydrogen, halogen, or substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH_2OR , OR , or C(O)OR , COR , where R is selected from the group consisting of hydrogen, and substituted and unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, and heteroaryl, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12;

R_4 and R_5 are independently selected from the group consisting of hydrogen, halogen, and substituted and unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH_2OR , OR , and C(O)OR , where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12;

R_6 is hydrogen, halogen, or substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, COR , CH_2OR , OR , or C(O)OR , where R is as defined

above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12,

provided that R_3 , R_4 , R_5 , and R_6 are not all hydrogen;

R_7 is hydrogen, halogen, or substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH_2OR , OR , or C(O)OR , where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12; or

R_6 and R_7 taken together with the atoms to which they are bonded form an optionally substituted 5- or 6-membered ring optionally having up to four heteroatoms selected from O, N, and S;

R_8 is a lipophilic moiety selected from substituted and unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH_2OR , OR , and C(O)OR , where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 6 to 20; and

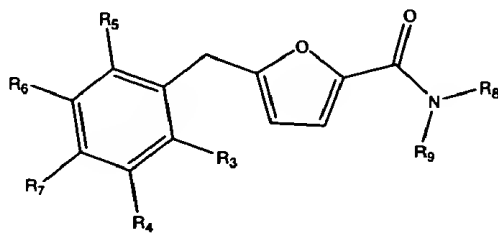
R_9 is hydrogen or substituted or unsubstituted alkyl;

or a pharmaceutically acceptable salt, multimer, prodrug, or active metabolite thereof.

14. (New Claim) A compound or pharmaceutically acceptable salt according to claim 13.

15. (New Claim) A pharmaceutical composition comprising;

(a) a therapeutically effective amount of a compound represented by the formula



wherein:

R_3 is hydrogen, halogen, or substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH_2OR , OR , or C(O)OR , COR , where R is selected from the group consisting of hydrogen, and substituted and unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, and heteroaryl, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12;

R₄ and R₅ are independently selected from the group consisting of hydrogen, halogen, and substituted and unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH₂OR, OR, and C(O)OR, where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12;

R₆ is hydrogen, halogen, or substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, COR, CH₂OR, OR, or C(O)OR, where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12,

provided that R₃, R₄, R₅, and R₆ are not all hydrogen;

R₇ is hydrogen, halogen, or substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH₂OR, OR, or C(O)OR, where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12; or

R₆ and R₇ taken together with the atoms to which they are bonded form an optionally substituted 5- or 6-membered ring optionally having up to four heteroatoms selected from O, N, and S;

R₈ is a lipophilic moiety selected from substituted and unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH₂OR, OR, and C(O)OR, where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 6 to 20; and

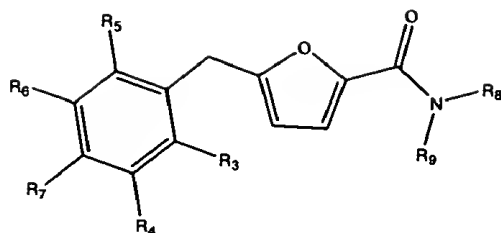
R₉ is hydrogen or substituted or unsubstituted alkyl;

or a pharmaceutically acceptable salt, multimer, prodrug, or active metabolite thereof;

and

(b) a pharmaceutically acceptable carrier or diluent.

16. (New Claim) A method for regulating the secretion of gonadotropins in mammals, comprising administering to a mammal in need of such regulation, a therapeutically effective amount of a compound represented by the formula



wherein:

R_3 is hydrogen, halogen, or substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH_2OR , OR, or C(O)OR , COR, where R is selected from the group consisting of hydrogen, and substituted and unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, and heteroaryl, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12;

R_4 and R_5 are independently selected from the group consisting of hydrogen, halogen, and substituted and unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH_2OR , OR, and C(O)OR , where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12;

R_6 is hydrogen, halogen, or substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, COR, CH_2OR , OR, or C(O)OR , where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12,

provided that R_3 , R_4 , R_5 , and R_6 are not all hydrogen;

R_7 is hydrogen, halogen, or substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH_2OR , OR, or C(O)OR , where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 1 to 12; or

R_6 and R_7 taken together with the atoms to which they are bonded form an optionally substituted 5- or 6-membered ring optionally having up to four heteroatoms selected from O, N, and S;

R_8 is a lipophilic moiety selected from substituted and unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, aryl, heteroaryl, CH_2OR , OR, and C(O)OR , where R is as defined above, and where the total number of carbon atoms present (not including any optional substituents) ranges from 6 to 20; and

R_9 is hydrogen or substituted or unsubstituted alkyl;

or a pharmaceutically acceptable salt, multimer, prodrug, or active metabolite thereof.